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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/609,250	06/30/2000	Tsuguhiro Korenaga	33216M050	2081

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EXAMINER

VARGOT, MATHIEU D

ART UNIT

PAPER NUMBER

1732

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/609,250

Applicant(s)

KORENAGA ET AL.

Examiner

Mathieu D. Vargot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Claims 1, 2 and 5-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has amended claim 1 to recite "the timing of the forcible separation...is determined so that" the relations are simultaneously satisfied and claim 9 to recite that the mechanism to drive one of the mold means to forcibly separate the mold from the base material "...drives...when" the relations are simultaneously satisfied. However, there does not appear to be any support in the specification as originally filed for the separation of the first mold from the molded base material occurring **when**, or the **timing of the separation being determined** so that, the relations are satisfied. Clearly, the relations need to be satisfied. However, the original specification merely disclosed these relations as having to be met for the molding and separation to occur. To impart a timing aspect (and tie this in with the separation) to the relationships being satisfied is simply not supported. Applicant needs to point out exactly where support exists for this or delete the language from the claims.

2. Claims 9, 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 9, line 14, applicant has deleted "and (3)" yet equation (3) is still recited at line 17. It is unclear whether or not this relation is still part of the claim or not. Clarification is required.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 7, 10 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Greschner et al, either alone, or further in view of either of Kandachi et al or Yanagisawa et al essentially for reasons of record noting the following.

Greschner et al discloses the instant method and mold, with Kandachi et al and Yanagisawa et al being additionally relied upon to teach the thermal coefficient for soda-lime glass to show that indeed the difference in thermal expansion coefficients between the mold (silicon) and molded material (soda-lime glass) in the process of Greschner et al is within the range set forth in instant claim 18 and so that the relationship (2) in claim 1 is satisfied. While the primary reference does indeed cool the mold and molded material down together before release, this allows equation (1) in claim 1 to be satisfied and would entail an operation that allows for the timing of the separation to be determined based on the relations set forth in claim 1. Since the separation does not occur until relation (1) in claim 1 is satisfied, it is submitted that Greschner et al still encompasses the method as set forth in instant claim 1 to the extent set forth in the instant specification. Hence, even if the recitations concerning the timing of the

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separation are not new matter, it is submitted that they are met in Greschner et al. Claim 18 is also met in Greschner et al with the exception of the temperature range for T_2 . However, the other relations set forth in claim 18 are indeed met and it is submitted that the temperature range constitutes a limitation which does not affect the structure of the mold, and hence claim 18 is anticipated. Ie, the temperature range constitutes a functional or process limitation which would be dependent either on the material molded or the time delay for cooling before separation and as such does not affect the structure of the mold being claimed. Further, it is fairly clear that the mold of Greschner et al would inherently function in the same manner when T_2 is within the range claimed, and hence claim 18 is anticipated. Again, as set forth in previous actions, the claims are rejected under 102 even though secondary references are applied since the secondary references are being relied upon to teach a numerical value submitted to be inherent in the process of Greschner et al.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 8, 9 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greschner et al, either alone, or further in view of Kandachi et al or Yanagisawa et al essentially for reasons of record noting the following.

The aspect of when the forcible separation occurs is already addressed in paragraph 3, supra, and is rejected in the apparatus claims for the same reason it is rejected in the

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method claims. The aspect of the vacuum chuck in instant claim 9 is submitted as obvious for reasons already given.

5. Applicant's arguments filed January 6, 2004 have been fully considered but they are not persuasive. Applicant submits that the aspect of timing the forcible separation defines over Greschner et al, but such is not persuasive. In the first place, it is believed that such constitutes new matter since the original disclosure was never directed, nor appears to contain any clear showing, that the timing of the separation was in any way controlled or determined by the relationships other than the fact that they had to be met during the molding and separation processes. To that extent, since the relationships are taught in Greschner et al, the reference encompasses the instant amendment even if same is not new matter. However, as already noted, applicant needs to show exactly where support exists for the language as set forth in currently amended claims 1 and 9 or delete same concerning the timing. The resins specified in instant claim 8 are submitted to have been an obvious material molded consideration over the sod-lime glass molded in the process of Greschner et al, since optical substrates of glass and resin are both quite well known in the art. Concerning the temperatures, note that these do not affect the apparatus claims in a structural sense and hence would not impart patentability thereto. As set forth in the method, the temperatures would have been obvious for reasons already given—either the exact material molded or temperature of separation. As such, they are submitted to have been within the skill level of the art. Greschner et al teaches higher molding temperatures since soda-lime glass is what is molded. One of ordinary skill in the art

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would know that the molding of plastics would involve a much lower temperature than glass, and that is why claims 12-17 are obvious over Greschner et al. Also, note that Greschner et al does not actually disclose what the separation temperature is, although it is less than the molding temperature. It is maintained that the exact separation temperature would have been within the skill level of the art dependent on cooling time employed.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne, can be reached on 571 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
March 21, 2004

M. Vargot
Mathieu D. Vargot
Primary Examiner
Art Unit 1732

3/21/04